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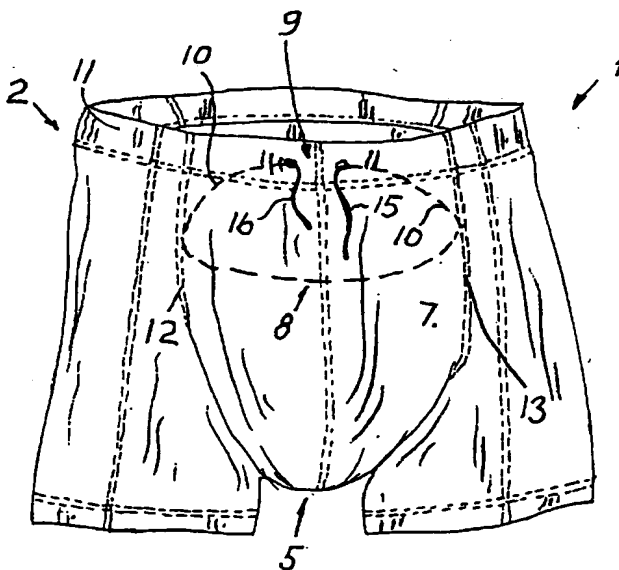
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **MEN'S UNDERWEAR WITH AN ADJUSTABLE SUPPORT SLING**



(57) Abstract: The invention relates to a pair of man's trousers which is adapted for use by preferably sportsmen and by other active persons, comprising a waist portion (2) connected to back and front portions (3, 4) which merged into each other or are interconnected at the crotch (5) of the wearer. The front portion (4) includes a pocket (7) swen to its inner side and having an upper, inward directed, free edge portion (8), the vertical position of which can be adjusted relatively the waist portion (2), preferably by means of an adjustment member (9) extending from the waist portion (2), preferably with the aid of adjustment means (9) extending from the waist portion (2), for the purpose of adaptation to the location of the genital organs of the user and/or to the type of sport which the wearer is practising.

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Men's underwear with an adjustable support sling.

5 The present invention relates to a pair of man's trousers which is adapted for use by preferably sportsmen and comprises a waist portion connected to front and back portions which at the crotch of its wearer are interconnected or merge into each other.

10 The trousers used today and available in the market in the shape of men's underwear or sport trousers do in many cases include inside trousers shaped like a perforated lining through which moisture can pass. In certain cases this lining is also designed to offer an action supporting the genitals of the man, above all his scrotum. In addition to those prior art trousers, especially  
15 those adapted for sport use, there exist specially shaped minimi trousers or girdles intended to support the "package" and/or to retain it in the desired position. The disadvantages of those previously known arrangements are that the lined trousers fail to keep all of the genital unit in its proper location without  
20 the aid of further garments/products. Also, it is inconvenient and time-consuming to apply the above mentioned details to secure the positioning thereof. Those previously known solutions concern what could be called scrotum bags the function of which is to push the scrotum up against the stomach. The sportsmen  
25 having a special need of a solution in this area are for example marathon racers and sprinters.

The object of the present invention is accordingly to provide a new type of men trousers which solves the above mentioned  
30 problems, can easily be manufactured and in an efficient way retain all of the genital unit in position without any need of additional garments/products. The features characterizing the invention are set out in the subsequent claims.

Thanks to the invention there has now been provided a new type of men's trousers which in an excellent manner satisfies the purposes and also can be manufactured in a cheap and convenient way. Such a pair of trousers does, especially for active persons and for sports men of a more professional character constitutes a solution which by means of a pocket sewn to the trousers keeps all of the genital unit in position. Further, due to the fact that the pocket that sewn on the trousers so as to provide a special adjustment function, it becomes possible to use the same type of trousers by all sportsmen irrespective of the type of sport they are practising and the stiffness requirements and by different individuals irrespective of their configuration as far as the size and the location of the genital organ is concerned. The adjustment function of the pocket makes it possible for e. g. a marathon racer to adjust the elastic governing the vertical position of a pocket to a lower pressure than that used by a 100 metres sprinter. Generally speaking, the pressure on the pocket can be adjusted to match different activities. The pocket consists of an elastic material, which makes it possible also to create a push up effect on the unit. Consequently, the essential features of the invention are that the pocket keeps all of the unit spaced from the body/the legs/the stomach. In this way an air slot is created between the genital organ and the rest of the body. On the one hand for cooling/temperature control, which inter alia gives a higher fertility, on the other hand to protect the skin from irritation. This type of trouser according to the invention is especially suitable for different sportsmen, where the need for spacing the unit is varying in response to the actual physical activity. According to the prior art the genital unit contacts a concave surface, but according to the invention there is instead a flat supporting surface behind the unit which generates a separating, temperature controlling effect.

Consequently, a pair of trousers according to the invention provided with its pocket can in a safe way "anchor" the genital unit and thanks to this allow a higher performance without  
5 limiting the freedom of movement, create this comfort or in some other way reduce the performance of the sports men.

A preferred embodiment of the invention is described below, reference being made to the drawing.

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Fig. 1 is a schematic perspective view showing a pair of trousers according to the invention with a pocket sewn thereon, its inner free, upper edge portion being vertically adjustable and

15 Fig. 2 is a schematic perspective view of the pair of trousers shown in fig. 1, here illustrated in a top view.

As appears from the drawings, a pair of trousers according to the preferred embodiment of the invention includes a waist  
20 portion 2 connected to front and back portions 3, 4. These merge into each other and are interconnected at the crotch 5 of the wearer. The front portion 4 of the trousers 1 does at its inner side have a pocket 7 sewn thereon and comprising an upper, free edge portion 8, which when the trousers are in use, should be  
25 located behind and against the scrotum root between the legs of the wearer. The vertical position of the edge portion 8 can be adjusted relatively the waste portion 2. Preferably, this adjustment is made with the aid of adjustment means 9 and in response to the position of the genitals on the body and to the  
30 type of sport at issue. The front portion of the adjustable pocket 7 and, more specifically, the free edge portion 8 is, stated in other words, adapted to lift all of the unit, meaning both scrotum and penis, inside the trousers in a direction out from the body for the purpose of forming an air slot between the

unit and the rest of the body/legs, stomach.

According to the exemplifying embodiment the adjustment means 9 is constituted by an elastic band 10 with the aid of which the free edge portion 8 can be tightened towards a waste band 11 in the waste portion 2, said band keeping the trousers in desired position on the user.

According to the example illustrated the pocket is tight at its bottom but, naturally, pocket 7 can alternatively be opened at its bottom, which is a preferred structure because it keeps the pocket free from collected dust and other undesired particles. As appears from the drawing the upper, free end portion 8 of pocket 7 extends along a curved line inward in the trousers and the adjustment member 9 is located in the edge portion 8. The front portion 14 of the pocket 7 is constituted by the inner side 6 of the front portion 4 of the trousers. Alternatively, the front portion 14 of the pocket 7 can be constituted by a separate wall portion, so that a bag is provided inside the front portion 4. The bag, or pocket, 7 can also be manufactured in a heat-insulating material which is suitable when the trousers are used winter time. Also, the pocket can be manufactured in a material having a low friction at the external side and a high friction on the internal side. The adjustment member 9 controlling the vertical position of the pocket 7 is, as has been mentioned above, preferably an elastic band 10. With the aid of some type of pulling hook in the waste band, its free ends 15 and 16 or a burdock strip band can be fixed in position in the waste portion 2. According to the example illustrated the sides 12, 13 of the pocket 7 are sewn to the inner side 6 of the front portion 4 of the pocket 7 in the larger part of the front portion 4 as extending vertically. The pocket 7 can suitably be made of a material that can be penetrated by air or moisture. This is to be preferred, especially when the trousers are to be

used by sportsmen. Alternatively, the pocket 7 can be constituted by a material also being elastic, whereby a so called "push up" effect can be attained.

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**Claims**

1. A pair of man's trousers which is adapted for use by preferably sportsmen and by other active persons, comprising a  
5 waist portion (2) connected to back and front portions (3, 4) which at the crotch (5) of the wearer are interconnected or merge into each other, characterized in that the front portion (4) does at its internal side (6) exhibit a sewn on pocket (7) having an upper, inwards extending free edge portion (8) the  
10 vertical position of which can be adjusted relatively the waist portion (2), preferably with the aid of adjustment means (9) attached to the waist portion (2) for adaptation to the location of the genital organs of the user on his body and/or to the type of sport he is practising, said adjustment means (9) being  
15 arranged to lift said upper free end portion (8) and thereby all of the genital organ of the man, i.e. both the scrotum and the penis, in a direction upwards, forwards, and inwards towards a waist band (11) located in the waist portion (2) for the positional fixation of the trousers proper on the user so as to  
20 provide a safe anchoring and also a "push up" effect of the organ unit.

2. A pair of trousers according to claim 1, characterized in that the adjustment means (9) is constituted by an elastic band  
25 (10).

3. A pair of trousers according to claim 1, characterized in that the pocket (7) is open at its bottom.

30 4. A pair of trousers according to claim 1, characterized in that the front portion (14) of the pocket (7) constituted by the front portion (4) of the inner side (6) of the trousers (1).

5. A pair of trousers according to claim 1, characterized in

that the adjustment means (9) for the vertical positioning of the pocket is constituted by a band (10) which at its free ends (15, 16) can by means of a burdock strip be fixed in position in the waste portion (2) of the trousers (1).

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6. A pair of trousers according to claim 1, characterized in that the sides (12, 13) of the pocket (7) are sewn on the inner side (6) of the front portion (4) of the trousers (1) along the greater part of the vertical extension of the front portion (4).

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7. A pair of trousers according to claim 1, characterized in that a pocket (7) is manufactured in a material which can be penetrated by air and/or moisture.

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8. A pair of trousers according to claim 7, characterized in that the pocket (7) is manufactured in a material also being elastic.

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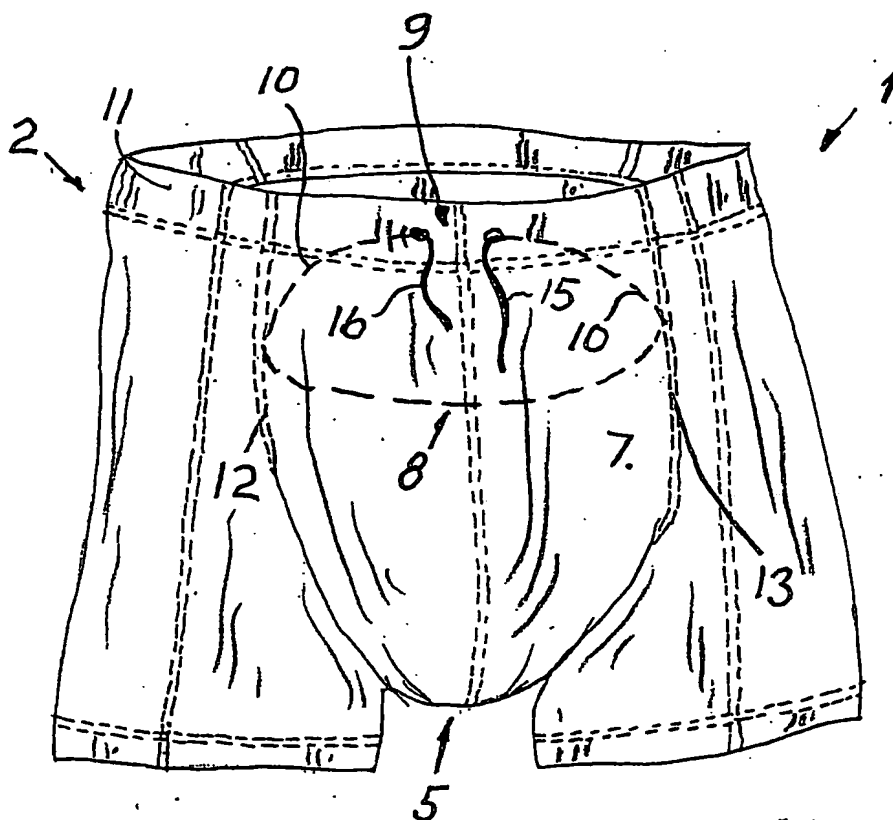


Fig. 1

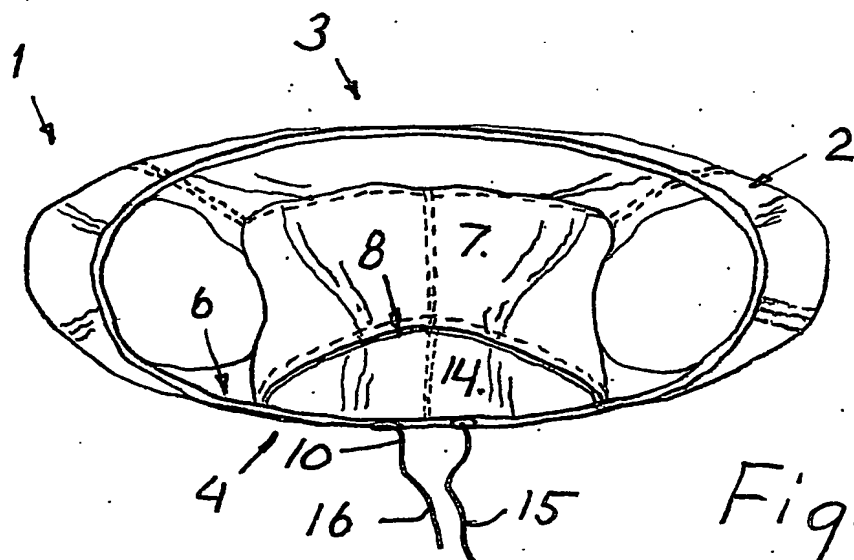


Fig. 2

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 01/02708

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7: A41B 9/02

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: A41B, A41D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5870779 A (R. HERON), 16 February 1999 (16.02.99), column 5, line 1 - line 7, figures 1-5 --	1-8
A	WO 9839981 A1 (HARTLEY, K.), 17 Sept 1998 (17.09.98), figures 2-8, claims 1-6, abstract --	1-8
A	FR 2567001 A1 (DELACHAUS, A.), 10 January 1986 (10.01.86), claim 7 --	5
A	US 3499443 A (E.O. SCHEERER), 10 March 1970 (10.03.70), column 1, line 41 - line 44 -- -----	7-8

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

\* Special categories of cited documents

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"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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"&amp;" document member of the same patent family

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Information on patent family members

28/01/02

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5870779 A	16/02/99	NONE	
WO 9839981 A1	17/09/98	AU 6285298 A AU P0557497 D	29/09/98 00/00/00
FR 2567001 A1	10/01/86	NONE	
US 3499443 A	10/03/70	NONE	